

Form PTO-1449 (REV. 8-83)	US Dept. of Commerce PATENT & TRADEMARK OFFICE	ATTY DOCKET NO. 101050	APPLICATION NO. 09/101,083
INFORMATION DISCLOSURE STATEMENT		APPLICANT(S) Satoru MIYASHITA et al:	
		FILING DATE July 8, 1998	GROUP 1773



U.S. PATENT DOCUMENTS						
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	
	5,041,190	08/1991	DRAKE et al.	156	647	
	5,713,278	02/1998	KAWANO et al.	101	128.4	
	5,742,129	04/1998	NAGAYAMA et al.	315	167	
	5,771,562	06/1998	HARVEY, III et al.	29	592.1	
	5,935,331	08/1999	NAKA et al.	118	319	
	5,997,122	12/1999	MORIYAMA et al.	347	11	
	6,195,142 B1	02/2001	GYOTOKU et al.	349	69	
	6,187,457 B1	02/2001	ARAI et al.	428	690	

FOREIGN PATENT DOCUMENTS						
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	
	JP-A-7-235378 (w/ English Language Abstract and Translation)	5/1995	Japan			

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)		
		"Electroluminescence in Conjugated Polymers;" R. H. Friend, R. W. Gymer, A. B. Holmes, J. H. Burroughes, R. N. Marks, C. Taliani, D. D. C. Bradley, D. A. Dos Santos, J. L. Bredas, M. Logdlund & W. R. Salaneck; Nature, Vol. 397, 14 January 1999.
		Opto-Electronic Properties of Disordered Organic Semiconductors, Proefschrift, Michel Cornelis Josephus Marie Vissenberg, geboren te Sint Maarten in 1972.
		Fabrication of Organic Light-Emitting Devices, Jennifer Reinig, Junior Physics/Math Major at Drake University, Physics REU: IA State University, Summer 2001
		The electroluminescence of organic materials; Ullrich Mitschke and Peter Bauerle, Received 2 <sup>nd</sup> November 1999, Accepted 15 <sup>th</sup> February 2000, Published on the Web 6 <sup>th</sup> June 2000.

EXAMINER <i>Jana</i>	DATE CONSIDERED <i>11/26/2004</i>
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Date: August 7, 2003

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<b>U.S. PATENT DOCUMENTS</b>				
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME
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EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY
		JP 072235378	9/1995	Japan
<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)</b>				
EXAMINER <i>Ishizumi</i>			DATE CONSIDERED <i>1/26/2004</i>	
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EXAMINER INITIAL <i>TC 1700</i>	DOCUMENT NUMBER	DATE	NAME		CLASS	SUB CLASS
	5,665,857	09/09/97	SHI		528	373
	5,540,999	07/30/96	YAMAMOTO et al.		428	411.1
	5,821,002	10/13/98	OHNISHI et al.		428	690
	6,008,828	12/28/99	FURUKI et al.		347	139
	5,281,489	01/25/94	MORI et al.		428	690
	4,569,305	02/11/86	FERRI et al.			
	4,687,352	08/18/87	IGI et al.			
	4,792,817	12/20/88	BARNEY			
	5,534,716	07/09/96	TAKEMURA			
	5,645,901	07/08/97	FUKUCHI et al.			
	5,798,626	03/17/98	ALLMAN et al.			
	5,744,171	04/28/98	SCHNEIDER			
	5,757,453	05/26/98	SHIN et al.			
	5,759,268	06/02/98	BEGIN et al.			
	5,770,260	06/23/98	FUKUYAMA et al.			
	5,779,799	07/14/98	DAVIS			
	5,784,132	07/21/98	HASHIMOTO			
	5,989,945	11/23/99	YUDASAKA et al.		438	149
	5,656,826	08/12/97	MISAWA et al.		257	72
	5,274,481	12/28/93	KIM			
	5,399,390	03/21/95	AKINS			
	3,792,308	02/12/74	OTA			
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	4,007,462	02/08/77	WETSEL, Jr.		427	157
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	09/901,095	07/10/01	KIMURA et al.			
	09/901,096	07/10/01	KIGUCHI et al.			
	09/901,126	07/10/01	YUDASAKA et al.			
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Date: November 18, 2002

Form PTO-1449  
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FILING DATE: July 8, 1998

GROUP: 1773

NOV 20 2003

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	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS
	JP-A-3-102324	04/26/91	Japan		
	JP-A-3-126921	05/30/91	Japan		
	JP-A-4-253033	09/08/92	Japan		
	JP-A-5-105486	04/27/93	Japan		
	JP-A-5-116941	05/14/93	Japan		
	JP-A-6-204168	07/22/94	Japan		
	JP-A-62-223727	10/01/87	Japan		
	JP-A-6-281958	10/07/94	Japan		
	JP-A-61-78165	04/21/86	Japan		
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	JP-A-5-283166	10/29/93	Japan		
	JP-A-6-308312 (w/English abstract)	11/04/94	Japan		
	JP-A-1-140188	06/01/89	Japan		
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	JP-A-6-281917 (w/English abstract)	10/07/94	Japan		
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	EP 0 732 868 A1	09/18/96	Europe		
	EP 0 717 439 A2	06/19/96	Europe		
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	WO 95/01871	01/19/95	WIPO		
	WO 98/32783	07/30/98	WIPO		

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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)			
<p> UCHIDA, Masao et al., "Color-Variable Light-Emitting Diode Utilizing Conducting Polymer Containing Fluorescent Dye",  <i>Jpn. J. Appl. Phys.</i>, Part 2 (1993), 32 (7A), L921-L924 (Chemical Abstract, Vol. 119, No. 16).</p>			
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FILING DATE: July 8, 1998

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EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS
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	2002/0011783 A1	01/31/02	HOSOKAWA		
	5,652,067	07/29/97	ITO et al.		
	5,472,889	12/05/95	KIM et al.		
	5,439,519	08/08/95	SAGO et al.		
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RECEIVED NOV 25 2003 TG 1700	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS
	0 656 644 A1	06/07/95	Europe		
	0 218 117 A2	04/15/87	Europe		
	DE 42 12 501 C1 (w/English abstract)	08/05/93	Germany		
	0 589 049 A1	03/30/94	Europe		
	0 404 545 A2	12/27/90	Europe		
	JP-A-62-295028 (w/English abstract)	12/22/87	Japan		
	JP-A-6-308312 (w/English abstract)	11/04/94	Japan		

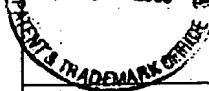
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EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS

## FOREIGN PATENT DOCUMENTS

RECEIVED NOV 25 2003 PTO	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS
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EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS
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		5,214,350	05/25/93	REMEC et al.		
		5,276,380	01/04/94	TANG		
		5,326,692	07/05/94	BRINKLEY et al.		
		5,593,788	01/14/97	SHI et al.		
		5,610,932	03/11/97	KESSLER et al.		
		5,854,139	12/29/98	ARATANI et al.		
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TC 1700 <i>NOV 20 2003</i>	RECEIVED	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS
		JP-A-62-31174 (w/English abstract)	02/10/87	Japan		
		JP-A-62-85224 (w/English abstract)	04/18/87	Japan		
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)						
		LEWIS, Richard J., <i>Hawley's Condensed Chemical Dictionary</i> , Thirteenth Edition, 1997, pp. 820 & 900-901.				
		MORRISON, Robert et al., <i>Organic Chemistry</i> , Fifth Edition, 1987, p. 637.				
		BUDAVARI, Susan et al., <i>The Merck Index An Encyclopedia of Chemicals, Drugs, and Biologicals</i> , Twelfth Edition, 1996, p. 357.				
		ADACHI, Chihaya et al., "Blue light-emitting organic electroluminescent devices", <i>Appl. Phys. Lett.</i> , Vol. 56, No. 9, February 26, 1990, pp. 799-801.				
		BURROWS, P.E. et al., "Color-tunable organic light-emitting devices", <i>Appl. Phys. Lett.</i> , Vol. 69, No. 20, November 11, 1996, pp. 2959-2961.				
		KIDO, J. et al., "Single-layer white light-emitting organic electroluminescent devices based on dye-dispersed poly(N-vinylcarbazole)", <i>Appl. Phys. Lett.</i> , Vol. 67, No. 16, October 16, 1995, pp. 2281-2283.				
		WU, C.C. et al., "Integrated three-color organic light-emitting devices", <i>Appl. Phys. Lett.</i> , Vol. 69, No. 21, November 18, 1996, pp. 3117-3119.				
		ZHANG, C. et al., "Blue emission from polymer light-emitting diodes using non-conjugated polymer blends with air-stable electrodes", <i>Synthetic Metals</i> , Vol. 72, 1995, pp. 185-188.				
		ISHIMARU, N. et al., "Development of Color Filters by Pigment Ink Jet Printing (II) (-Production Technology-), <i>SID</i> , 1997, pp. 69-72.				
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<p><b>RECEIVED</b> <b>TC 1700</b> <b>NOV 25 2003</b></p> <p>EBISAWA, F. et al., "Electrical Properties of polyacetylene/polysiloxane interface", <i>J. Appl. Phys.</i>, Vol. 54, No. 6, June 1983, pp. 3255-3259.</p> <p>KIDO, Junji et al., "Organic electroluminescent devices based on molecularly doped polymers", <i>Appl. Phys. Lett.</i>, Vol. 61, No. 7, August 17, 1992, pp. 761-763.</p> <p>VAN SLYKE, S.A. et al., "Organic electroluminescent devices with improved stability", <i>Appl. Phys. Lett.</i>, Vol. 69, No. 15, October 7, 1996, pp. 2160-2162.</p> <p>ZHANG, C. et al., "Blue electroluminescent diodes utilizing blends of poly(<i>p</i>-phenylphenylene vinylene) in poly(9-vinylcarbazole)", <i>Synthetic Metals</i>, Vol. 62, 1994, pp. 35-40.</p> <p>WESTWEBER, H. et al., "Electroluminescence from polymer blends and molecularly doped polymers", <i>Synthetic Metals</i>, Vol. 64, 1994, pp. 141-145.</p> <p>NONAKA, Y. et al., "Development of Color Filters by Pigment Ink Jet Printing (I) (Fundamental Technology)", <i>SID</i>, 1997, pp. 238-241.</p> <p>WU, Chung-Chih et al., "Efficient Organic Electroluminescent Devices Using Single-Layer Doped Polymer Thin Films with Bipolar Carrier Transport Abilities", <i>IEEE Transactions on Electron Devices</i>, Vol. 44, No. 8, August 1997, pp. 1269-1281.</p> <p>TIAN, Jing et al., "Luminescent Properties of Conjugated Poly(<i>p</i>-pyridylvinylene) and Poly(<i>p</i>-pyridiniumvinylene)", <i>Polymer Preprints</i>, Vol. 35, No. 2, August 1994, pp. 761-762.</p> <p>MARSELLS, Michael J. et al. "Regiochemical Consequences in Poly(2,5-Pyridinium Vinylene): Kekule' and Non-Kekule' Conductive Polymers", <i>Polymer Preprints</i>, Vol. 33, No. 1, April 1992, pp. 1196-1197.</p> <p>HOSOKAWA, Chishio et al., "Highly efficient blue electroluminescence from a distyrylarylene emitting layer with a new dopant", <i>Appl. Phys. Lett.</i>, Vol. 67, No. 26, December 25, 1995, pp. 3853-3855.</p> <p>HEBNER, T.R. et al. "Ink-jet printing of doped polymers for organic light emitting devices", <i>Appl. Phys. Lett.</i>, Vol. 72, No. 5, February 2, 1998, pp. 519-521.</p> <p>MAYO, Jonathan W. et al., "16.3: Colour Filters for Flat Panel Displays by High Definition Ink Jet Printing", <i>Euro Display '96</i>, October 1-3, 1996, pp. 537-540.</p> <p>PARKER, I.D. et al., "Efficient blue electroluminescence from a fluorinated polyquinoline", <i>Appl. Phys. Lett.</i>, Vol. 65, No. 10, September 5, 1994, pp. 1272-1274.</p> <p>TIAN, Jing et al., "Photophysical Properties, Self-Assembled Thin Films, and Light-Emitting Diodes of Poly(<i>p</i>-pyridylvinylene)s and Poly(<i>p</i>-pyridinium vinylene)s", <i>Chem. Mater.</i>, Vol. 7, No. 11, 1995, pp. 2190-2198.</p> <p>TIAN, Jing et al., "Electroluminescent Properties of Self-Assembled Polymer Thin Films", <i>Adv. Mater.</i>, Vol. 7, No. 4, 1995, pp. 395-398.</p> <p>JOHNSON, G.E. et al., "Electroluminescence from single layer molecularly doped polymer films", <i>Pure &amp; Appl. Chem.</i>, Vol. 67, No. 1, 1995, pp. 175-182.</p>				
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